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AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application. Please cancel claims 1 and 9-11 without prejudice or disclaimer; amend claims 3-5, 7, 8, 13-15, 17, and 18; and add new claims 19-22, as follows:

Claims 1 and 2 (Canceled).

3. (Currently Amended) A part maintenance system for a semiconductor processing system according to claim **[[1]]** 19, wherein

said vendor-side system estimates a time period required to reach the second stage limit value level via the part order processing means, and

if said vendor-side system judges that **[[**the**]]** a replacement for the part can be made available by said time period and a periodic maintenance of said semiconductor processing system is scheduled by said time period, maintenance schedule information for inputting an exchange of the part into a periodic maintenance schedule is sent to said factory-side system by said vendor-side sending/receiving means through said public communication network, and

if said factory-side sending/receiving means receives the maintenance schedule information, said factory-side system inputs **[[**the**]]** a exchange of the part into said periodic maintenance schedule and updates said periodic maintenance schedule.

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4. (Currently Amended) A part maintenance system for a semiconductor processing system according to claim 3, wherein

said vendor-side system estimates the time period required to reach the second stage limit value level via the part order processing means, and

if the vendor-side system judges that the replacement for the part cannot be made available by said time period required to reach the second stage limit value level, the vendor-side system judges that maintenance of the part can be performed, and

if the vendor-side system judges that the periodic maintenance of the semiconductor processing system is scheduled by said time period required to reach the second stage limit value level, maintenance schedule information for inputting the maintenance of the part into said periodic maintenance schedule is sent to said factory-side system via said vendor-side sending/receiving means through said public communication network.

5. (Currently Amended) A part maintenance system for a semiconductor processing system according to claim **[[1]]** 19, wherein

the predetermined allowable limit value of operation time or the predetermined allowable number of operations of said part which is stored in the preset means of said factory-side system is a value based on a value counted by a counter corresponding to said part, and

said measuring means of said factory-side system measures the actual operation time or the number of actual operations of said part based on the value counted by the counter corresponding to said part.

6. (Previously Presented) A part maintenance system for a semiconductor processing system according to claim 5, wherein

said measuring means measures the actual operation time of said part via the counter corresponding to said part by measuring operation time of a part driving means which drives said part.

7. (Currently Amended) A part maintenance system for a semiconductor processing system according to claim **[[1]]** 19, wherein

the preset means of said factory-side system stores a normal operation time and an allowable limit value of the normal operation time,

said measuring means of said factory-side system measures the actual operation time of said part,

said maintenance judging means of said factory-side system compares the actual operation time of said part and the allowable limit value of the normal operation time of said part with each other to form a judgment of the operation state of said part, and

said factory-side system sends the order processing request of said part to said vendor-side system through said public communication network via said factory-side sending/receiving means in accordance with a result of said judgment formed based on the actual operation time of said part and the allowable limit value of the normal operation time of said part.

8. (Currently Amended) A part maintenance system for a semiconductor processing system according to claim **[[1]]** 19, wherein

the preset means of said factory-side system stores a time-passage change and an allowable limit value of the time-passage change,

said measuring means of said factory-side system measures time-passage change of the actual operation of said part,

said maintenance judging means of said factory-side system compares the time-passage change of the actual operation of said part and the allowable limit value of the time-passage change of the normal operation to form a judgment of the operation state, and

said factory-side system sends the order processing request of said part to said vendor-side system through said public communication network via said factory-side sending/receiving means in accordance with a result of said judgment formed based on the time-passage change of the actual operation of said part and the allowable limit value of the time-passage change of the normal operation.

Claims 9-12 (Canceled).

13. (Currently Amended) A part maintenance method according to claim **[[11]]** 20, wherein

said vendor-side system estimates a time period required until the level reaches the second stage limit value level via a part order processing means, and if said vendor-side system judges that a replacement for the part can be made available by

said time period and a periodic maintenance of said semiconductor processing system is scheduled by said time period, maintenance schedule information for inputting an exchange of the part into the periodic maintenance schedule is sent to said factory-side system through said public communication network, and

if said factory-side system receives the maintenance schedule information through the public communication network, said factory-side system inputs the exchange of the part into said periodic maintenance schedule and updates said periodic maintenance schedule.

14. (Previously Presented) A part maintenance method according to claim 13, wherein

said vendor-side system estimates said time period required to reach the second stage limit value level via a part order processing means, and if the vendor-side system judges that the replacement for the part cannot be made available by said time period, the vendor-side system judges that maintenance of the part can be performed, and

if the vendor-side system judges that the periodic maintenance of the semiconductor processing system is scheduled by said time period, maintenance schedule information for inputting the maintenance of the part into said periodic maintenance schedule sent to said factory-side system through said public communication network.

15. (Currently Amended) A part maintenance method according to claim [[11]] 20, wherein

the predetermined allowable limit value of operation time or the predetermined number of operations of said part which is stored in said factory-side system is a value based on a value counted by a counter corresponding to said part, and

actual operation time or the number of actual operations of said part is measured by said factory-side system based on the value of the counter corresponding to said part.

16. (Previously Presented) A part maintenance method according to claim 15, wherein

the actual operation time of said part is measured via said counter corresponding to said part based on operation time of a part driving means which drives said part.

17. (Currently Amended) A part maintenance method according to claim [[11]] 20, wherein

said factory-side system stores a normal operation time and an allowable limit value of the normal operation time,

said factory-side system measures the actual operation time of said part,

said maintenance judging means of said factory-side system compares the actual operation time of said part and the allowable limit value of the normal operation time of said part with each other to form a judgment of the operation state of said part, and

said factory-side system sends the order processing request of said part to said vendor-side system through said public communication network in accordance with a result of said judgment formed based on the actual operation time of said part and the allowable limit value of the normal operation time of said part.

18. (Currently Amended) A part maintenance method of a semiconductor processing system according to claim **[[**11**]]** 20, wherein

said factory-side system stores a time-passage change and an allowable limit value of the time-passage change,

said factory-side system measures time-passage change of the actual operation of said part,

said factory-side system compares the time-passage change of the actual operation of said part and the allowable limit value of the time-passage change of the normal operation to form a judgment of the operation state of said part, and

said factory-side system sends the order processing request of said part to said vendor-side system through said network in accordance with a result of said judgment formed based on the time-passage change of the actual operation of said part and the allowable limit value of the time-passage change of the normal operation.

19. (New) A part maintenance system for maintaining at least one part constituting a portion of a semiconductor processing system, the part maintenance system comprising:

at least one semiconductor processing system, the at least one semiconductor processing system comprising a counter configured to count a value corresponding to operating conditions of the part;

a factory-side system comprising:

a factory-side server connected to the at least one semiconductor processing system via a first private communication network, the factory-side server comprising:

a preset means for storing at least two stage limit value levels corresponding to at least one of a predetermined allowable operation time limit and a predetermined number of operations of the part,

a measuring means for measuring at least one of an actual operation time and a number of actual operations of the part, and

a maintenance judging means for judging operation conditions associated with the part by comparing at least one of the actual operation time and the number of actual operations of the part with at least one of the predetermined allowable operation time limit and the predetermined number of operations of the part to determine whether an order processing request for the part is desired; and

a factory-side sending/receiving means connected to the factory-side server via the first private communication network; and

a vendor-side system comprising:

a vendor-side sending/receiving means connected to the factory-side sending/receiving means via a public communication network, and

a vendor-side server connected to the vendor-side sending/receiving means via a second private communication network, the vendor-side server comprising a part order processing means for processing an order of the part corresponding to the order processing request of the part,

wherein the factory-side sending/receiving means comprises a firewall configured to inhibit unauthorized transfer of data between the factory-side server and the public communication network,

wherein the vendor-side sending/receiving means comprises a firewall configured to inhibit unauthorized transfer of data between the vendor-side server and the public communication network,

wherein the value counted by the counter is communicated to the factory-side server via the first private communication network,

wherein the measuring means is configured to measure at least one of the actual operation time and the number of actual operations of the part based on the value counted by the counter,

wherein the maintenance judging means compares at least one of the actual operation time and the number of actual operations of the part to a first stage limit value level and a second stage limit value level, and if the at least one of the actual operation time and the number of actual operations of the part is at least equal to the first stage limit value level, the maintenance judging means generates a part ordering processing

request, and if the at least one of the actual operation time and the number of actual operations of the part is at least equal to the second stage limit value level, the maintenance judging means carries out a notice processing,

wherein the factory-side sending/receiving means is configured to send the order processing request via the public communication network to the vendor-side sending/receiving means,

wherein the firewall of the factory-side sending/receiving means and the firewall of the vendor-side sending/receiving means inhibit unauthorized transfer of data from the factory-side server and the vendor-side server, respectively, and

wherein the vendor-side sending/receiving means is configured to receive the order processing request via the public communication network.

20. (New) A part maintenance method for maintaining at least one part constituting a portion of a semiconductor processing system, the part maintenance system comprising:

counting a value corresponding to operating conditions of the part of the semiconductor processing system;

storing at least two stage limit value levels corresponding to at least one of a predetermined allowable operation time limit and a predetermined number of operations of the part via a factory-side system comprising a factory-side server connected to the semiconductor processing system via a first private communication network;

measuring at least one of an actual operation time and a number of actual operations of the part via a measuring means;

judging operation conditions associated with the part by comparing at least one of the actual operation time and the number of actual operations of the part with at least one of the predetermined allowable operation time limit and the predetermined number of operations of the part to determine whether an order processing request for the part is desired via a maintenance judging means of the factory-side system;

connecting a factory-side sending/receiving means to a factory-side server via the first private communication network;

connecting a vendor-side sending/receiving means of a vendor-side system to the factory-side sending/receiving means via a public communication network;

processing an order of the part corresponding to the order processing request of the part via a part order processing means of a vendor-side server connected to the vendor-side sending/receiving means via a second private communication network;

inhibiting unauthorized transfer of data between the factory-side server and the public communication network via a firewall associated with the factory-side sending/receiving means;

inhibiting unauthorized transfer of data between the vendor-side server and the public communication network via a firewall associated with the vendor-side sending/receiving means;

communicating the value counted by a counter to the factory-side server via the first private communication network;

measuring at least one of the actual operation time and the number of actual operations of the part based on the value counted by the counter;

comparing at least one of the actual operation time and the number of actual operations of the part to a first stage limit value level and a second stage limit value level, and if the at least one of the actual operation time and the number of actual operations of the part is at least equal to the first stage limit value level, generating a part ordering processing request, and if the at least one of the actual operation time and the number of actual operations of the part is at least equal to the second stage limit value level, carrying out a notice processing;

sending the order processing request via the public communication network to the vendor-side sending/receiving means via the factory-side sending/receiving means; and

inhibiting unauthorized transfer of data from the factory-side server and the vendor-side server via the firewall of the factory-side sending/receiving means and the firewall of the vendor-side sending/receiving means, respectively.

21. (New) The part maintenance system according to claim 19, wherein the counter comprises at least one of an RF discharging time counter, a cumulative RF discharging time counter, a PM usage-frequency counter, a cumulative PM usage-frequency counter, an operation time counter, a driving frequency counter, and a gas using amount counter.

22. (New) The part maintenance method according to claim 20, wherein the counter comprises at least one of an RF discharging time counter, a cumulative RF discharging time counter, a PM usage-frequency counter, a cumulative PM usage-

frequency counter, an operation time counter, a driving frequency counter, and a gas using amount counter.